

National Ecological Observatory Network (NEON): Development of NEON Coordinating Consortium (NCC) and Project Office

Program Solicitation

NSF 04-549



National Science Foundation

Directorate for Biological Sciences

Division of Biological Infrastructure

A prospective Principal Investigator meeting will be held the last week of February, 2004 in Washington, DC to discuss this solicitation as well as the National Ecological Observatory Network (NEON), NSF's Facilities Management and Oversight Guide, and Large Facilities Project Management. For details contact Dr. Elizabeth Blood, Program Director, Directorate for Biological Sciences, Division of Biological Infrastructure, 615 N, telephone: (703) 292-8470, email: eblood@nsf.gov.

Letter of Intent Due Date(s) (required):

March 08, 2004

Full Proposal Deadline(s) (due by 5 p.m. proposer's local time):

April 26, 2004

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

National Ecological Observatory Network (NEON): Development of NEON Coordinating Consortium (NCC) and Project Office

Synopsis of Program:

The most pressing challenges facing the nation's biosphere result from complex interactions between human, natural and physical systems, which operate over large spatial and temporal scales and transcend all levels of biological organization. To better understand these interactions requires a new tool to investigate the structure, dynamics, and evolution of ecosystems in the United States and to forecast biological change. Through a series of workshops, reports, and planning activities the research community determined that the National Ecological Observatory Network (NEON) should be the new tool: a continent-wide research platform, composed of networked state-of-the-art analytical and communication technologies. NEON will create new collaborative environments, support multi-and inter-disciplinary research, stimulate innovative approaches to information management, develop human capital, and facilitate the integration of research and education across a wide range of the biological, geophysical, engineering and social sciences.

In response, the Directorate for Biological Sciences of the National Science Foundation announces its intention to support the establishment of a NEON Coordinating Consortium (NCC), which will provide the scientific leadership, administration, community participation, and overall governance of NEON and include a NEON Project Office. The latter will initially plan and coordinate activities for NEON, while, ultimately, it will be responsible for the construction and daily management of NEON.

Cognizant Program Officer(s):

- Elizabeth R. Blood, Program Director, Directorate for Biological Sciences, Division of Biological Infrastructure, 615 N, telephone: (703) 292-8470, email: eblood@nsf.gov

Applicable Catalog of Federal Domestic Assistance (CFDA) Number(s):

- 47.074 --- Biological Sciences

Eligibility Information

- **Organization Limit:**

Proposals under this program solicitation will be accepted from U.S. universities and colleges, non-profit organizations, non-academic organizations, or consortia of eligible organizations.

- **PI Eligibility Limit:** None Specified.
- **Limit on Number of Proposals:** None Specified.

Award Information

- **Anticipated Type of Award:** Cooperative Agreement
- **Estimated Number of Awards:** 1
- **Anticipated Funding Amount:** \$6,000,000 for 24 months. Pending availability of funds up to \$3,000,000 will be provided in FY2004 and up to \$3,000,000 in FY2005.

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- **Letters of Intent:** Submission of Letters of Intent is required. Please see the full text of this solicitation for further information.
- **Full Proposal Preparation Instructions:** This solicitation contains information that supplements the standard Grant Proposal Guide (GPG) proposal preparation guidelines. Please see the full text of this solicitation for further information.

B. Budgetary Information

- **Cost Sharing Requirements:** Cost Sharing is not required.
- **Indirect Cost (F&A) Limitations:** Not Applicable.
- **Other Budgetary Limitations:** Not Applicable.

C. Due Dates

- **Letters of Intent (*required*):**
March 08, 2004
- **Full Proposal Deadline Date(s)** (due by 5 p.m. proposer's local time):
April 26, 2004

Proposal Review Information

- **Merit Review Criteria:** National Science Board approved criteria. Additional merit review considerations apply. Please see the full text of this solicitation for further information.

Award Administration Information

- **Award Conditions:** Standard NSF award conditions apply.
- **Reporting Requirements:** Additional reporting requirements apply. Please see the full text of this solicitation for further information.

TABLE OF CONTENTS

Summary of Program Requirements

- I. **Introduction**
- II. **Program Description**
- III. **Eligibility Information**
- IV. **Award Information**
- V. **Proposal Preparation and Submission Instructions**
 - A. Proposal Preparation Instructions
 - B. Budgetary Information
 - C. Due Dates
 - D. FastLane Requirements
- VI. **Proposal Review Information**
 - A. NSF Proposal Review Process
 - B. Review Protocol and Associated Customer Service Standard
- VII. **Award Administration Information**
 - A. Notification of the Award
 - B. Award Conditions
 - C. Reporting Requirements
- VIII. **Contacts for Additional Information**
- IX. **Other Programs of Interest**

X. Definitions

I. INTRODUCTION

The Directorate for Biological Sciences (BIO) of the National Science Foundation (NSF) announces its intention to support the establishment of a national coordinating organization for the National Ecological Observatory Network (NEON). The NEON Coordinating Consortium (NCC) will provide the scientific leadership, administration, community participation, and overall governance of NEON. The NCC will establish a NEON Project Office that will formulate and implement a management plan to define the science requirements, technical requirements, and draft the preliminary project execution plan for NEON.

Human actions have become a dominant force in environmental change. Ongoing land alterations, climate change, and altered biogeochemical processes have resulted in changes in biodiversity and ecosystem functioning and the goods and services they provide. Globalization has led to the introduction and spread of invasive species and infectious diseases with little understanding of the consequences to biodiversity or ecosystems functioning. Achieving a mechanistic and predictive understanding of environmental change will require comprehensive and interdisciplinary studies that span large spatial and temporal scales and transcend levels of biological complexity.

Ecosystem research using traditional approaches cannot be scaled up to regional and continental scales. New collaborative environments needed to foster the necessary interdisciplinary studies, innovative training, and effective communication among scientists, students, decision makers, and the public are emerging but the biological infrastructure required to conduct studies at regional to continental scales does not exist. Therefore, to address the major environmental challenges, a new national research platform is needed.

The National Ecological Observatory Network (NEON) has been defined as just such a nationally networked and collaborative research platform that will apply current and emerging technologies to address pressing environmental questions on regional to continental scales. With common interdisciplinary research infrastructure and protocols, NEON will facilitate the measurement and forecasting of biological change across the United States. In so doing, NEON will provide critical capabilities that are currently unavailable to research and education.

II. PROGRAM DESCRIPTION

The Directorate for Biological Sciences of the National Science Foundation (NSF) requests proposals to establish a national coordinating organization for NEON. The NEON Coordinating Consortium (NCC) will provide the scientific leadership, administration, community participation, and overall governance of NEON. The NCC will establish a NEON Project Office that will formulate and implement a management plan to define the science requirements, technical requirements, and draft the preliminary project execution plan that includes the scope, budget, and schedule for the design, construction and operation of NEON as well as preliminary plans for research, networking and education infrastructure.

Proposals should consider previous workshops, reports, and planning activities that provide the research community's perspectives on NEON such as "IBRCS White Paper: Rationale, Blueprint, and Expectations for the National Ecological Observatory Network" (IBRCS 2003) [<http://ibr.cs.aibs.org/reports/index.asp>], National Research Council (NRC) Report Neon: Addressing the Nation's Environmental Challenges (NRC 2003) [<http://www.nap.edu/catalog/10807.html>], and "Coordination and Implementation of the National Ecological Observatory Network (NEON)"(<http://ibr.cs.aibs.org/reports/index.asp#NEONCoord>). The major deliverable from this award will be a preliminary Project Execution Plan (PEP) as detailed in NSF's "Facilities Management and Oversight Guide" (<http://www.nsf.gov/pubs/2003/nsf03049/nsf03049.pdf>).

NEON Coordinating Consortium (NCC)

The NCC will lead, coordinate, organize, and serve as the research community focal point for NEON. A significant task of the awardee will be to convert the *consensus within the community into an organizational structure that can define the organization, governance, planning, administration, and management of NEON*. In addition, the awardee will foster interactions between NEON and other observing systems both nationally and internationally, including other appropriate NSF research infrastructure such as Earthscope (<http://www.earthscope.org>).

The NCC, in consultation with the research community and NSF, will establish an advisory structure that provides the scientific, technical, and management leadership to define NEON infrastructure. This advisory structure will address scientific vision and technical requirements; management and governance; cyberinfrastructure and information technology; education, training, and outreach; and other technical and ecological issues related to development, construction, implementation and operation of NEON. Proposals should describe how advisory committees will be organized, led, operate, interact, reach consensus, and disseminate their discussions and findings. For guidance on these issues, proposers should familiarize themselves with the recent IBRCs report, "Coordination and Implementation of the National Ecological Observatory Network (NEON)" (<http://ibrcs.aibs.org/reports/index.asp#NEONCoord>).

NEON Project Office

The NCC must establish a NEON Project Office. Responsibilities for the NEON Project Office are grouped in three stages. The stages include (1) the development of the Project Execution Plan, (2) the implementation of the PEP and construction of NEON, and (3) the operations and management of NEON. This solicitation addresses the first stage. With advice from the NCC and research community, and in consultation with NSF, the Project Office will formulate the scientific and technical requirements for NEON, including opportunities for education, outreach, and training unique to NEON. The Project Office will prepare a preliminary project scope, budget, and schedule for the design, construction and operation and maintenance phases of NEON, as outlined in NSF's "Facilities Management and Oversight Guide" (<http://www.nsf.gov/pubs/2003/nsf03049/nsf03049.pdf>).

In later stages, the NEON Project Office will construct and be responsible for the operations and management of NEON. After the NEON Project Office has developed the PEP, another solicitation will be released for the construction phase of NEON, pending the availability of funds.

The proposal should describe the process for establishing the office, duties and responsibilities of the office, and administrative and management structure. At a minimum the NEON Project Office should have a dedicated staff to plan and conduct its activities. The project staff credentials must demonstrate expertise and past accomplishments in ecological science, development of organizations, project management, committee organization and management, education and outreach, and interactive web site development, usage, and maintenance. Expertise must also be provided for project management software, technical report editing, web page development and maintenance and web-based publications.

A Principal Investigator (PI) must be designated with a significant time commitment to direct the day-to-day activities of the NEON Project Office. Co-PIs, administrative/clerical staff, and consultants who bring additional expertise needed to conduct the duties of the office may assist the PI. An experienced Webmaster must be budgeted for the project period. Office and meeting facilities must be available for the project, including Internet communications capabilities and institutional meeting space necessary to conduct planned activities. The PI will work closely with the cognizant NSF Program Officer to keep NSF informed of Project Office activities and also to solicit input on aspects related to program planning.

Intellectual property materials resulting from NSF funded research must be made promptly and freely available.

Time Line Requirement

The awardee is expected to achieve five major milestones:

1. establish the NEON Coordinating Consortium and NEON Project Office by March 1, 2005;
2. provide a science plan outlining the scientific requirements of NEON by October 1, 2005;
3. provide a baseline design for the networking and informatics components of NEON by October 1, 2005;
4. formally incorporate as a legal entity in the United States by January 1, 2006 in order to receive awards from the federal government (if not currently able to do so), for the construction, management, and operation of NEON, and;
5. provide a preliminary Project Execution Plan (PEP) for all of NEON by June 1, 2006.

Within six-months after the award, the awardee will be expected to establish an interactive web site that will serve as the definitive source of information about NEON. This web site will be used to inform on project activities and will be the source for meeting minutes, workshop announcements, and reports. At later stages, the site will also have an important role in education and outreach activities and will be the source for educational and training materials created in relation to NEON.

III. ELIGIBILITY INFORMATION

Proposals under this program solicitation will be accepted from U.S. universities and colleges, non-profit organizations, non-academic organizations, or consortia of eligible organizations.

PI Eligibility Limit: None Specified.

Limit on Number of Proposals: None Specified.

IV. AWARD INFORMATION

Anticipated funding is \$6,000,000 for 24 months. Pending availability of funds up to \$3,000,000 will be provided in FY2004 and up to \$3,000,000 in FY2005. Following a successful merit review and pending availability of funds, one award, made as a cooperative agreement, is expected to be funded by September 30, 2004 for up to two years.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Letters of Intent (*required*):

A Letter of Intent is mandatory so NSF can expedite the review process. Letters of Intent must be submitted by the lead principal investigator via email to eblood@nsf.gov by March 8, 2004.

The Letter of Intent should include:

- Title of proposal.

- The names and affiliations of the principal investigator, *all* co-principal investigator(s) and senior personnel.
- The telephone and facsimile numbers and e-mail addresses of the principal investigator and an authorized organizational representative of the submitting institution.
- A list of all participating institutions, organizations and subawardees, including names, telephone and facsimile numbers and e-mail addresses.
- A brief description (not more than 500 words) of the vision for the NEON Coordinating Consortium.

Letters of intent will not be evaluated or used to decide on funding. They are requested to assist NSF in planning the review process. The submission of a letter of intent enables NSF to begin identifying potential panelists and conflicts of interest before the proposal submission deadline. Letters of intent are treated with the same confidentiality as NSF proposal submissions. NSF will acknowledge receipt of the letter of intent via email to the principal investigator.

Full Proposal Instructions:

Proposals submitted in response to this program announcement/solicitation should be prepared and submitted in accordance with the general guidelines contained in the NSF *Grant Proposal Guide* (GPG). The complete text of the GPG is available electronically on the NSF Website at: <http://www.nsf.gov/cgi-bin/getpub?gpg>. Paper copies of the GPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from pubs@nsf.gov.

Proposals must be submitted by FastLane and must follow guidelines described in the GPG. The following instructions supplement the guidelines in the Grant Proposal Guide. In addition, NSF's "Facilities Management and Oversight Guide" (<http://www.nsf.gov/pubs/2003/nsf03049/nsf03049.pdf>) should be consulted for guidance on planning, construction, and operations of NEON infrastructure. Also consult "Additional Review Criteria" below and address issues raised in these criteria. Note additional reporting requirements listed in section VII.C. of this solicitation.

Project Summary (one page)

The Project Summary should include a list of the PI and CoPIs from the cover sheet and their organizations, a brief description of the project activities and a separate statement about the broader impacts of the project. Please note that a Project Summary that does not include both activities and broader impacts of these activities will be returned without review. Detailed explanation can be found at <http://www.nsf.gov/pubsys/ods/getpub.cfm?iin127>.

Project Description

The Project Description section must not exceed 25 pages. In deviation from the GPG, figures, including charts, graphs, maps, photographs, tables, and other pictorial representations can be submitted as supplemental documentation in Fastlane "Supplementary Docs" and are not included in this 25-page limit. However, no more than a total of 20 pages should be included as supplemental documentation. Non-conforming proposals may be returned without review. References cited and biographical sketches are also not included in this page limit. The Project Description section must contain the following sections, 1 through 5, in the sequence and with the headings shown below.

Section 1: List of All Project Personnel. For each PI, CoPI, and senior personnel, list name, professional title, department, organizational affiliation, phone number, email address, and mailing address.

Section 2: Results from Prior NSF Support (up to 5 pages). If the principal investigator or co-principal investigator(s) have received NSF funding in the past five years, results from prior awards is required. Reviewers will be asked to comment on the quality of the prior work described in this section of the proposal.

Section 3: Project Activities, Schedule, Milestones, and Outcomes. Provide a legible Gantt chart and identify major activities, key milestones, and key outcomes over the project period. Identify and discuss the critical path for development and incorporation of the NCC. The schedule should show the sequencing of all major activities to be conducted during the project in sufficient detail to justify the proposed budget.

Identify and discuss all project milestones and outcomes, including those listed above in the section "Program Description." In tabular form, provide a concise list of project activities that are keyed to the milestones and outcomes. Provide rationale for why these activities are selected, who will organize, facilitate, and participate in them (cite types of backgrounds, disciplines, sectors, etc., rather than specific participant names), and the methods/metrics that will be used to evaluate their effectiveness to fulfill project milestones and outcomes. Describe the proposed plan, process, and activities during the project period that will be used to:

1. Develop a consensus vision for the NCC organizational structure, administration, governance, and operating plans.
2. Identify and engage key constituencies of the ecological and other disciplinary communities in consensus-building activities. Discuss how outlying or dissenting input will be addressed.
3. Identify and facilitate advisory committees for development of the NCC and NEON design. Describe how the advisory committees will be organized, led, operate, reach consensus, and disseminate their findings.
4. Coordinate outreach and training activities and connectivity for NEON infrastructure sites
5. Operate an interactive web site for communication with the ecological community. Describe how the web site will be developed and integrated into project activities and used to provide timely and definitive information for and communications among members of the ecological community.
6. Establish, staff, and operate the Project Office.
7. Develop a preliminary Project Execution Plan.

Section 4: Management Plan, Organizational Structure, and Project Staffing. Provide a management plan for this project. Discuss the administrative and organizational structure and qualifications of the PI, CoPI, and senior personnel. Discuss why each member, including all subawardees and consultants (if any), is needed. Provide a table that shows for each staff member, including all subawardees and consultants, the following: name, administrative position/title on the project, level of effort (monthly and annually), activities assigned, and responsibilities for achievement of key milestones and outcomes. Provide a functional project budget in tabular form showing how resources will be allocated for management and project milestones, outcomes, and activities. Provide a plan for annual project critical self-assessment that includes measurable metrics and discuss how the results of the self-assessment will be used for project improvement.

Section 5: Risks. Discuss any risks associated with the formation of the NCC during the project period and discuss the strategy planned to manage these risks. Discuss lessons learned by the proposing team from past experience in the development of organizations and consensus building for similar types of organizations and broad constituencies.

Facilities:

Describe office and meeting facilities that will be available for the project, including office equipment, teleconference, communications capabilities, and institutional meeting space necessary to conduct project business.

Proposal Budget:

Provide summary and yearly budgets. When subawards are involved, summary and yearly budgets are required for each subaward. A Budget Justification should be provided for both the proposer and any subawardees. Institutions that do not meet the eligibility criteria described above may not participate as subawardees. A careful and realistic budget will add to the overall strength of a proposal. Foreign collaborators' projects are expected to be supported by their national sources.

Special Information and Supplementary Documentation:

In the Special Information and Supplementary Documentation section, include a single alphabetized list, in a table, with the full names of all people with conflicts of interest for all senior personnel (PI and Co-PI's) and any named personnel whose salary is requested in the project budget. Conflicts to be identified are (1) PhD thesis advisors or advisees, (2) collaborators or co-authors, including postdocs, for the past 48 months, and (3) any other individuals, including spouses, or institutions with which the investigator has financial ties (please specify type).

Proposers are reminded to identify the program announcement/solicitation number (04-549) in the program announcement/solicitation block on the proposal Cover Sheet. Compliance with this requirement is critical to determining the relevant proposal processing guidelines. Failure to submit this information may delay processing.

B. Budgetary Information

Cost Sharing:

Cost sharing is not required in proposals submitted under this Program Solicitation.

C. Due Dates

Proposals must be submitted by the following date(s):

Letters of Intent (*required*):

March 08, 2004

Full Proposal Deadline(s) (due by 5 p.m. proposer's local time):

April 26, 2004

D. FastLane Requirements

Proposers are required to prepare and submit all proposals for this announcement/solicitation through the FastLane system. Detailed instructions for proposal preparation and submission via FastLane are available at: <http://www.fastlane.nsf.gov/a1/newstan.htm>. For FastLane user support, call the FastLane Help Desk at 1-800-673-6188 or e-mail fastlane@nsf.gov. The FastLane Help Desk answers general technical questions related to the use of the FastLane system. Specific questions related to this program announcement/solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this announcement/solicitation.

Submission of Electronically Signed Cover Sheets. The Authorized Organizational Representative (AOR) must electronically sign the proposal Cover Sheet to submit the required proposal certifications (see Chapter II, Section C of the [Grant Proposal Guide](#) for a listing of the certifications). The AOR must provide the required electronic certifications within five working days following the electronic submission of the proposal. Proposers are no longer required to provide a paper copy of the signed Proposal Cover Sheet to NSF. Further instructions regarding this process are available on the FastLane Website at: <http://www.fastlane.nsf.gov>

VI. PROPOSAL REVIEW INFORMATION

A. NSF Proposal Review Process

Reviews of proposals submitted to NSF are solicited from peers with expertise in the substantive area of the proposed research or education project. These reviewers are selected by Program Officers charged with the oversight of the review process. NSF invites the proposer to suggest, at the time of submission, the names of appropriate or inappropriate reviewers. Care is taken to ensure that reviewers have no conflicts with the proposer. Special efforts are made to recruit reviewers from non-academic institutions, minority-serving institutions, or adjacent disciplines to that principally addressed in the proposal.

The National Science Board approved revised criteria for evaluating proposals at its meeting on March 28, 1997 ([NSB 97-72](#)). All NSF proposals are evaluated through use of the two merit review criteria. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

On July 8, 2002, the NSF Director issued [Important Notice 127](#), Implementation of new Grant Proposal Guide Requirements Related to the Broader Impacts Criterion. This Important Notice reinforces the importance of addressing both criteria in the preparation and review of all proposals submitted to NSF. NSF continues to strengthen its internal processes to ensure that both of the merit review criteria are addressed when making funding decisions.

In an effort to increase compliance with these requirements, the January 2002 issuance of the GPG incorporated revised proposal preparation guidelines relating to the development of the Project Summary and Project Description. Chapter II of the GPG specifies that Principal Investigators (PIs) must address both merit review criteria in separate statements within the one-page Project Summary. This chapter also reiterates that broader impacts resulting from the proposed project must be addressed in the Project Description and described as an integral part of the narrative.

Effective October 1, 2002, NSF will return without review proposals that do not separately address both merit review criteria within the Project Summary. It is believed that these changes to NSF proposal preparation and processing guidelines will more clearly articulate the importance of broader impacts to NSF-funded projects.

The two National Science Board approved merit review criteria are listed below (see the [Grant Proposal Guide](#) Chapter III.A for further information). The criteria include considerations that help define them. These considerations are suggestions and not all will apply to any given proposal. While proposers must address both merit review criteria, reviewers will be asked to address only those considerations that are relevant to the proposal being considered and for which he/she is qualified to make judgments.

What is the intellectual merit of the proposed activity?

How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields? How well qualified is the proposer (individual or team) to conduct the project? (If appropriate, the reviewer will comment on the quality of the prior work.) To what extent does the proposed activity suggest and explore creative and original concepts? How well conceived and organized is the proposed activity? Is there sufficient access to resources?

What are the broader impacts of the proposed activity?

How well does the activity advance discovery and understanding while promoting teaching, training, and learning? How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)? To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships? Will the results be disseminated broadly to enhance scientific and technological understanding? What may be the benefits of the proposed activity to society?

NSF staff will give careful consideration to the following in making funding decisions:

Integration of Research and Education

One of the principal strategies in support of NSF's goals is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions provide abundant opportunities where individuals may concurrently assume responsibilities as researchers, educators, and students and where all can engage in joint efforts that infuse education with the excitement of discovery and enrich research through the diversity of learning perspectives.

Integrating Diversity into NSF Programs, Projects, and Activities

Broadening opportunities and enabling the participation of all citizens -- women and men, underrepresented minorities, and persons with disabilities -- is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and

supports.

Additional Review Criteria:

In addition to the general review criteria established by the National Science Board, proposals will be reviewed against the following merit review criteria:

Consortium

- Is the vision for NCC aligned with the vision for the NEON program articulated in this program solicitation, IBRCS White Paper, and NRC report?
- Has a coherent concept for NCC organizational structure been identified that guides the selection of project milestones, outcomes, and activities?
- Were advisory committees identified and sufficiently described so that it is clear how they will facilitate the development of the NCC and NEON design? Will the advisory committees be organized, led, and operated so that they can reach consensus and disseminate their findings?
- Have appropriate milestones, outcomes, and activities been identified for NCC development and establishment? Is the project schedule reasonable? Has the critical path leading to the establishment of the NCC been identified?
- Have the risks to achieving the NCC been identified, and a strategy provided to address or mitigate them?
- Are project resources effectively allocated?

Project Office

- Will the proposed Project Office have the resources, staff, expertise, and authority to plan, construct, and operate NEON?
- Have appropriate milestones, outcomes, and activities been identified for NEON Project Office development and establishment?
- Have the risks to achieving the NEON Project Office been identified, and a strategy provided to address or mitigate them?
- Is the project schedule reasonable? Has the critical path leading to the establishment of the NEON Project Office been identified?
- Are project resources effectively allocated?

Proposal Team

- Is there evidence that the proposing team has provided leadership and coordination for the development of organizations and consensus building for similar types of organizations and broad constituencies in the past?
- Does the proposing team provide all the expertise needed to conduct this project?
- Does the proposing team have knowledge of the key stakeholders in the ecological, biological, and other relevant disciplinary communities?
- Will the proposing team be successful in engaging a broad constituency across the ecological, biological, and other identified disciplinary communities?

Communication

- Have appropriate milestones, outcomes, and activities been identified for defining and coordinating communication activities for NEON?
- How effective are the plans for communications with the ecological, biological, and other relevant disciplinary communities?
- Is it likely that the proposed web site will facilitate effective communications and interactions with the ecological and biological community?
- Is the plan for an interactive web site sufficient to develop and integrate project activities and provide timely

and definitive information for and communications among regional observatories?

Preliminary Project Execution Plans

- Have appropriate milestones, outcomes, and activities been identified for defining the preliminary project execution plans for networking and informatics; education, outreach, and training; and research infrastructure?
- How effective are the plans to involve the ecological, biological, and other relevant disciplinary communities in the preliminary PEPs development?
- Have the risks to achieving the NEON preliminary PEPs been identified, and a strategy provided to address or mitigate them?
- Is the project schedule reasonable? Has the critical path leading to the development of the preliminary PEPs been identified?
- Are project resources effectively allocated?

B. Review Protocol and Associated Customer Service Standard

All proposals are carefully reviewed by at least three other persons outside NSF who are experts in the particular field represented by the proposal. Proposals submitted in response to this announcement/solicitation will be reviewed by Ad Hoc and/or panel review. If necessary, site visits will occur after the panel review for proposals judged appropriate for final consideration .

Reviewers will be asked to formulate a recommendation to either support or decline each proposal. The Program Officer assigned to manage the proposal's review will consider the advice of reviewers and will formulate a recommendation.

A summary rating and accompanying narrative will be completed and submitted by each reviewer. In all cases, reviews are treated as confidential documents. Verbatim copies of reviews, excluding the names of the reviewers, are sent to the Principal Investigator/Project Director by the Program Director. In addition, the proposer will receive an explanation of the decision to award or decline funding.

NSF is striving to be able to tell applicants whether their proposals have been declined or recommended for funding within six months. The time interval begins on the date of receipt. The interval ends when the Division Director accepts the Program Officer's recommendation.

In all cases, after programmatic approval has been obtained, the proposals recommended for funding will be forwarded to the Division of Grants and Agreements for review of business, financial, and policy implications and the processing and issuance of a grant or other agreement. Proposers are cautioned that only a Grants and Agreements Officer may make commitments, obligations or awards on behalf of NSF or authorize the expenditure of funds. No commitment on the part of NSF should be inferred from technical or budgetary discussions with a NSF Program Officer. A Principal Investigator or organization that makes financial or personnel commitments in the absence of a grant or cooperative agreement signed by the NSF Grants and Agreements Officer does so at their own risk.

VII. AWARD ADMINISTRATION INFORMATION

A. Notification of the Award

Notification of the award is made to *the submitting organization* by a Grants Officer in the Division of Grants and Agreements. Organizations whose proposals are declined will be advised as promptly as possible by the cognizant NSF Program Division administering the program. Verbatim copies of reviews, not including the identity of the reviewer, will be provided automatically to the Principal Investigator. (See section VI.A. for additional information on the review process.)

B. Award Conditions

An NSF award consists of: (1) the award letter, which includes any special provisions applicable to the award and any numbered amendments thereto; (2) the budget, which indicates the amounts, by categories of expense, on which NSF has based its support (or otherwise communicates any specific approvals or disapprovals of proposed expenditures); (3) the proposal referenced in the award letter; (4) the applicable award conditions, such as Grant General Conditions (NSF-GC-1); * or Federal Demonstration Partnership (FDP) Terms and Conditions * and (5) any announcement or other NSF issuance that may be incorporated by reference in the award letter. Cooperative agreement awards also are administered in accordance with NSF Cooperative Agreement Terms and Conditions (CA-1). Electronic mail notification is the preferred way to transmit NSF awards to organizations that have electronic mail capabilities and have requested such notification from the Division of Grants and Agreements.

*These documents may be accessed electronically on NSF's Website at http://www.nsf.gov/home/grants/grants_gac.htm. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from pubs@nsf.gov.

More comprehensive information on NSF Award Conditions is contained in the NSF *Grant Policy Manual* (GPM) Chapter II, available electronically on the NSF Website at <http://www.nsf.gov/cgi-bin/getpub?gpm>. The GPM is also for sale through the Superintendent of Documents, Government Printing Office (GPO), Washington, DC 20402. The telephone number at GPO for subscription information is (202) 512-1800. The GPM may be ordered through the GPO Website at <http://www.gpo.gov>.

C. Reporting Requirements

For all multi-year grants (including both standard and continuing grants), the PI must submit an annual project report to the cognizant Program Officer at least 90 days before the end of the current budget period.

The activities of the awardee will be monitored through brief monthly reports of financial and technical status using Earned Value reporting, monthly teleconferences and Quarterly Progress Reports. Earned Value reporting should account for the activities of sub-awardees and major subcontractors as well. In lieu of a Fourth Quarter Report, an Annual Report on progress and plans will be submitted by the awardee to the cognizant NSF Program Officer. NSF will provide the format for these reports within one month of the award date. Both Quarterly and Annual reports must address progress of the NCC regarding the duties outlined in the Solicitation.

Within 90 days after the expiration of an award, the PI also is required to submit a final project report. Failure to provide final technical reports delays NSF review and processing of pending proposals for the PI and all Co-PIs. PIs should examine the formats of the required reports in advance to assure availability of required data.

PIs are required to use NSF's electronic project reporting system, available through FastLane, for preparation and submission of annual and final project reports. This system permits electronic submission and updating of project reports, including information on project participants (individual and organizational), activities and findings, publications, and other specific products and contributions. PIs will not be required to re-enter information previously provided, either with a proposal or in earlier updates using the electronic system.

VIII. CONTACTS FOR ADDITIONAL INFORMATION

General inquiries regarding this program should be made to:

- Elizabeth R. Blood, Program Director, Directorate for Biological Sciences, Division of Biological Infrastructure, 615 N, telephone: (703) 292-8470, email: eblood@nsf.gov

For questions related to the use of FastLane, contact:

- Dylan B. George, Science Assistant, Directorate for Biological Sciences, Division of Biological Infrastructure, 615 N, telephone: (703) 292-8470, fax: (703) 292-9063, email: dgeorge@nsf.gov

IX. OTHER PROGRAMS OF INTEREST

The NSF *Guide to Programs* is a compilation of funding for research and education in science, mathematics, and engineering. The NSF *Guide to Programs* is available electronically at <http://www.nsf.gov/cgi-bin/getpub?gp>. General descriptions of NSF programs, research areas, and eligibility information for proposal submission are provided in each chapter.

Many NSF programs offer announcements or solicitations concerning specific proposal requirements. To obtain additional information about these requirements, contact the appropriate NSF program offices. Any changes in NSF's fiscal year programs occurring after press time for the *Guide to Programs* will be announced in the NSF [E-Bulletin](#), which is updated daily on the NSF Website at <http://www.nsf.gov/home/ebulletin>, and in individual program announcements/solicitations. Subscribers can also sign up for NSF's [Custom News Service](http://www.nsf.gov/home/cns/start.htm) (<http://www.nsf.gov/home/cns/start.htm>) to be notified of new funding opportunities that become available.

Related Programs:

NONE.

X. DEFINITIONS

Baseline Definition (or design): the basis for comprehensive organization of the following:

- work to be performed
- technical scope of project
- cost and resource estimates
- work plan and schedule
- risk management plan
- Work Breakdown Structure

More detailed description of the Baseline definition can be obtained at <http://131.215.125.172/workshop3/talks/sanders01.pdf>.

Earthscope: an NSF supported project initiated in FY03. It is an undertaking to apply modern observational, analytical and telecommunications technologies to investigate the structure and evolution of the North American continent and the physical processes controlling earthquakes and volcanic eruptions. Detailed information can be found at <http://www.earthscope.org/>

Infrastructure for Biology at Regional and Continental Scales (IBRCS): a program at the American Institute of Biological Sciences aimed to promote large geographically-distributed research infrastructure for the biological sciences. More detailed information on IBRCS can be obtained at <http://ibr.cs.aibs.org/core/index.asp>.

NEON Coordinating Consortium (NCC): an organization that will coordinate, develop, and operate NEON. See the program description for further details as to the overall role of the NCC.

NEON Project Office: an office inside the NCC that will have the authority to develop the reference design, baseline definition, and Project Execution Plans for NEON. Other responsibilities are outlined in the program description.

Project Execution Plan (PEP): a requirement of the NSF's "Facilities Management and Oversight Guide". The following elements comprise a PEP:

- Organizational Structure
- Baseline Project Definition
- Work Breakdown Structure
- Risk Assessment and Management
- Contingency Management
- Configuration Management and Change Control
- Quality Assurance and Quality Control
- Safety, Environment and Health
- Financial and Business Operations Controls
- System Integration, Commissioning
- Testing and Acceptance
- Plan for Transitioning from Implementation to Operations & Management

See the "Facilities Management and Oversight Guide" (<http://www.nsf.gov/bfa/lfp/>) for a more detailed description of the different elements comprising a PEP .

Reference design: more specifics on a project than a conceptual design. In particular, a reference design defines several things for a project such as the scientific questions to be addressed, scientific requirements of the facilities or equipment, the needed research and development (including test beds where applicable), technological requirements, and the technological options.

ABOUT THE NATIONAL SCIENCE FOUNDATION

The National Science Foundation (NSF) funds research and education in most fields of science and engineering. Awardees are wholly responsible for conducting their project activities and preparing the results for publication. Thus, the Foundation does not assume responsibility for such findings or their interpretation.

NSF welcomes proposals from all qualified scientists, engineers and educators. The Foundation strongly encourages women, minorities and persons with disabilities to compete fully in its programs. In accordance with Federal statutes, regulations and NSF policies, no person on grounds of race, color, age, sex, national origin or disability shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving financial assistance from NSF, although some programs may have special requirements that limit eligibility.

Facilitation Awards for Scientists and Engineers with Disabilities (FASSED) provide funding for special assistance or equipment to enable persons with disabilities (investigators and other staff, including student research assistants) to work on NSF-supported projects. See the GPG Chapter II, Section D.2 for instructions regarding preparation of these types of proposals.

The National Science Foundation promotes and advances scientific progress in the United States by competitively awarding grants and cooperative agreements for research and education in the sciences, mathematics, and engineering.

To get the latest information about program deadlines, to download copies of NSF publications, and to access abstracts of awards, visit the NSF Website at <http://www.nsf.gov>

- **Location:** 4201 Wilson Blvd. Arlington, VA 22230
- **For General Information** (NSF Information Center): (703) 292-5111
- **TDD (for the hearing-impaired):** (703) 292-5090 or (800) 281-8749
- **To Order Publications or Forms:**

Send an e-mail to: pubs@nsf.gov
or telephone: (703) 292-7827
- **To Locate NSF Employees:** (703) 292-5111

PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of

qualified proposals; project reports submitted by awardees will be used for program evaluation and reporting within the Executive Branch and to Congress. The information requested may be disclosed to qualified reviewers and staff assistants as part of the proposal review process; to applicant institutions/grantees to provide or obtain data regarding the proposal review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies needing information as part of the review process or in order to coordinate programs; and to another Federal agency, court or party in a court or Federal administrative proceeding if the government is a party. Information about Principal Investigators may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See Systems of Records, NSF-50, "Principal Investigator/Proposal File and Associated Records," 63 Federal Register 267 (January 5, 1998), and NSF-51, "Reviewer/Proposal File and Associated Records," 63 Federal Register 268 (January 5, 1998). Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

An agency may not conduct or sponsor, and a person is not required to respond to an information collection unless it displays a valid OMB control number. The OMB control number for this collection is 3145-0058. Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding this burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to: Suzanne Plimpton, Reports Clearance Officer, Division of Administrative Services, National Science Foundation, Arlington, VA 22230.

OMB control number: 3145-0058.

[nsf.gov](https://www.nsf.gov)

[| About NSF](#) | [Funding](#) | [Publications](#) | [News & Media](#) | [Search](#) | [Site Map](#) | [Help](#)



The National Science Foundation
4201 Wilson Boulevard, Arlington, Virginia 22230, USA
Tel: 703-292-5111, FIRS: 800-877-8339 | TDD: 703-292-5090 or (800) 281-8749

[Policies](#)
[Contact NSF](#)
[Customize](#)